

**REMARKS:**

Claims 20-32 remain in the case and are presented for reconsideration.

Although the Examiner has indicated that a certified copy of the priority applications have not been filed at page 1, box 12)a)1) of the Office Action, the priority documents are believed to have been filed in the parent application no. 10/045,855 filed January 11, 2002 and now US Patent 6,703,081 as evidenced by the restriction requirement dated November 26, 2002 and issued during the prosecution of that application (partial copy attached). If this is not correct, the Examiner is respectfully requested to indicate whether a certified copy of Swiss priority application no. 1292/99 filed July 13, 1999, or PCT application PCT/CH2000/000364 filed January 11, 2002, or both are required to perfect the Applicants' priority claim.

Claim 20, as well as its dependent claims 22, 23 and 25-32, have been rejected as being obvious under 35 U.S.C. 103 from a combination of U.S. Patent 5,753,045 to Karner in view of U.S. Patent 5,340,621 to Matsumoto. The remaining claims 21 and 24 are also rejected as being obvious from this combination of references but with a third reference as well.

The undersigned and the Applicants have carefully reviewed the Examiner's reading of Karner and Matsumoto and reasoning for holding that the claimed combination follows from an obvious combination of these references to those skilled in the art to which the invention pertains. There are believed to be objective indicia against a holding of obviousness of the claimed invention, however, from a more complete consideration of the

full teaching of the Karner and Matsumoto references.

Karner exploits the locus around a plasma beam whereat plasma density is constant for workpiece treatment, i.e. a circular cylindrical locus around the beam axis. It is clear that along such a locus, a homogenous effective distribution of the plasma upon the substrates is reached.

Matsumoto takes the same approach. That is, Matsumoto exploits the locus of constant plasma density of the plasma beams for reaching homogenous plasma treatment of the workpiece as well.

Because in Matsumoto the plasma beams are sheets, the locus of homogenous plasma density is substantially a plane that is parallel to the beam sheets, whereas in Karner, because the beam plasma density distribution is bell-shaped the locus is cylindrical.

Nevertheless, both references teach the exploitation of respective loci of the plasma beam arrangement, at which a constant plasma density is realized.

**The present invention departs from this approach that is common to both references.**

On the one hand, by maintaining plasma beams that are not spread and have a bell-shaped density distribution, and on the other hand, providing the workpieces along the surfaces as claimed, one departs from the approach that is common to both references, namely to locate substrates along constant density loci.

Thus, departing from Karner which teaches exploiting cylindrical loci, the claimed invention is not obvious even considering Matsumoto because Matsumoto also provides the workpieces along such constant plasma density loci.

In view of this common teaching from both Karner and Matsumoto, the holding that those with ordinary skill in the art of this invention would be motivated to add a second plasma beam configuration to Karner because of the Matsumoto teaching, and that this would just be an obvious duplication of parts (last paragraph on page 4 of the Action) is respectfully traversed.

Even accepting *arguendo* that there is motivation to add a second plasma beam discharge to the apparatus of Karner to increase the amount of plasma so that more or larger substrates can be coated as taught by Matsumoto, doing so in Karner would lead to maintaining two distinct loci that are provided by two plasma beams and to an arrangement of substrates along respective cylindrical surfaces about each of the plasma beams. Otherwise the skilled artisan would be making a combination that is against the teaching of both Karner and Matsumoto, namely that constant plasma density loci are desired.

Stated in another way, to depart from such exploitation of loci with constant plasma density in Karner is clearly not obviated by Matsumoto because Matsumoto also exploits loci of constant plasma density which are, in Matsutnoto, planes due to the sheet shaped plasma beams in that reference.

Therefore, it is respectfully asserted that the Examiner's conclusion with respect to motivation is not correct in that the claimed invention departs from the constant plasma density loci principal that is common to both references.

By contract the invention is claimed to comprise:

at least two plasma beam discharge configurations being one beside the other and mutually parallel and each generating a discrete plasma beam with a plasma density distribution having a maximum along said axis and dropping with increasing radial distance from said axis (claim 20, lines 10-13);

in combination with:

mutual distance of said axes being so that the plasma density substantially midway between said axes has a local minimum (Claim 20, lines 15-17);

and:

at least one deposition configuration establishing for a surface to be treated being positioned along a surface (13) which is exposed to said at least two plasma beams as generated by said at least two plasma beam discharge configurations, said surface being exposed extending along a substantial section of said plasma beam directional axes, each area of said surface (13) being exposed having a distance to the nearest of said at least two plasma beam directional axes which is substantially shorter than said distance between said cathode and anode electrodes of each of said pairs and by which said surface being exposed to at most 20% of plasma density of the

beam along said nearest axes (Claim 20, lines 17-25).

The constant plasma density loci principal that is shared by both Karner and Matsumoto is clearly violated by the claimed combination and its varying plasma density across the expanse of the surface being treated, and this very different relationship is only understood after reading the present application.

It is therefore again believed that the combination of Karner and Matsumoto would not reach claim 20 in an obvious manner contemplated by 35 U.S.C. 103 or the cases interpreting that statute.

The dependent claims all further distinguish the invention and further limit claim 20 so are likewise believed to be unobvious.

Accordingly, the application and claims are believed to be in condition for allowance, and favorable action is respectfully requested. No new matter has been added and if any issues remain, the Examiner is again respectfully invited to contact the undersigned to advance the application to allowance.

Respectfully submitted,  
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